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Engineering Continuing Education
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**Sixtieth Annual
Transportation
Conference**
February 9-10, 2017

AUBURN UNIVERSITY SAMUEL GINN COLLEGE OF ENGINEERING

Engineering Continuing Education
Department of Civil Engineering
Alabama Technology Transfer Center

present the

Sixtieth Annual Transportation Conference February 9-10, 2017

Sponsored by:

*Alabama Department of Transportation
Federal Highway Administration
Auburn University
Alabama Road Builders Association
Alabama Asphalt Pavement Association
Alabama Concrete Industries Association
ASCE, Alabama Section
Association of County Engineers of Alabama
Institute of Transportation Engineers, Alabama Section
Alabama Concrete Pipe Association
American Council of Engineering Companies of Alabama
Bridge Construction Association of Alabama*

About the Conference

Auburn's Civil Engineering Department and the Program Committee have designed the Sixtieth Annual Transportation Conference for federal and state highway personnel, road building contractors, general contractors, heavy construction contractors, utility contractors, county engineers, consulting engineers, construction material vendors, researchers, professional society representatives, and University faculty members. It provides an opportunity for these individuals to share innovative advances in transportation planning, engineering design, and construction.

The conference presents technical presentations to provide a forum for the exchange of ideas within the highway engineering and construction professions. The sponsorship of the annual conference is indicative of the broad cross section of interest in the programs of this one and a half day continuing education event.

Location and Schedule

The conference will be held at the Renaissance Montgomery Hotel & Spa at The Convention Center, located at 201 Tallapoosa Street, Montgomery, Alabama. Final registration and check-in will be held from 8:30 a.m. to 10:30 a.m. in the Main Lobby on Thursday, February 9, 2017. The Opening General Session begins at 10:30 a.m. in the Performing Arts Center on the second floor. The conference will adjourn Friday afternoon, February 10, 2017.

Registration and Fee

All persons attending the conference must register. The registration fee of \$200 includes all sessions, program materials, refreshment breaks, and luncheons. Additional luncheon tickets are available at the registration desk. Student and ALDOT retiree registration is \$50. To register, please complete the attached registration form and return it by mail to the address indicated, by FAX (334) 844-5715, or by calling Engineering Continuing Education at (800) 446-0382 or (334) 844-4370. On-line registration is available at www.engce.auburn.edu.

Accommodations

Participants are responsible for making their own lodging arrangements. A block of rooms have been reserved at the conference hotel. The room block is listed under "60th Transportation and Engineering Conference". Rate: \$136 plus taxes. Call (877) 545-0311.

Cancelation Policy

Due to commitments to our speakers and facilities, the registration fee is non-refundable if a registrant withdraws less than five business days before the program starts. Substitutions may be made at any time, please notify us in advance if possible. No-shows will be liable for the entire conference fee. Auburn University reserves the right to cancel any program due to insufficient registrations. This decision is usually made no later than five business days prior to the event. If a program is canceled for any reason, all fees will be refunded. Auburn University will not be responsible for travel expenses incurred by a registrant as the result of a canceled program.

Continuing Education

Participants in this conference will be able to attend up to eight (8) hours of technical programs. Auburn University makes every effort to ensure that its technical programs conform to the requirements of the State of Alabama Board of Licensure for Professional Engineers and Land Surveyors for the award of Professional Development Hours to support the annual renewal of professional licensure.

Participants with Disabilities

It is the policy of Auburn University to provide accessibility to its programs and reasonable accommodations for persons defined as having disabilities under the Americans with Disabilities Act of 1990. Please contact us at least two weeks prior to the program so that proper consideration can be given to any special needs.

Program Handouts

Handouts of the material presented at each session will be available for download approximately two weeks after the conference. Presentations can be downloaded by visiting the following website: <http://www.alabamat2.org>

Program Committee

Alabama Department of Transportation (ALDOT)

John R. Cooper	Don Arkle
Rex Bush	George Conner
Lamar Woodham	William Adams
Willie Bradley	Tim Colquett
Stacey Glass	Scott George
Bob Jilla	Steve Walker
Ed Austin	Tim Barnett
John Eagerton	Ed Phillips
Robert Lee	Skip Powe
Michelle Owens	Maxine Wheeler
Curtis Vincent	Steve Graben
Vince Calametti	James Brown
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Auburn University

Brian Anderson	Garry Havron
Jeff LaMondia	Justin Marshall
Larry Sellers	Anton Schindler
Rod Turochy	Wesley Zech
Hugo Zhou	Michael Heitzman

Federal Highway Administration

Mark Bartlett and Lewis Harden
Montgomery, Alabama

Alabama Road Builders Association

Tom Layfield, Montgomery, Alabama

Alabama Asphalt Pavement Association

Mel Monk, Montgomery, Alabama

Alabama Concrete Industries Association

John Sorrell, Montgomery, Alabama

Alabama Section, ASCE

Alan Parker, Dothan, Alabama

Association of County Engineers of Alabama

David Palmer, Russellville, Alabama

Institute of Transportation Engineers, Alabama Section

Clark Bailey, Birmingham, Alabama

American Council of Engineering Companies of Alabama

Renée Casillas, Montgomery, Alabama

Bridge Construction Association of Alabama

Mark Seeley, Huntsville, Alabama

Alabama Concrete Pipe Association

Fred Crawford, Clanton, Alabama

2017 Conference Outline

Thursday, February 9, 2017

8:30 a.m.	Registration Opens
10:30 a.m.	Opening General Session – Performing Arts Center <i>Presiding:</i> Dr. Anton Schindler, Professor and HRC Director, Department of Civil Engineering Auburn University, Auburn, AL
	Opening Remarks
	Innovation and Intelligence in Construction Jason Kennedy Product Manager for Intelligent Machine Control, Komatsu America Corp., Cartersville, GA
	Current and Future Economic Development in Alabama Greg Canfield, Secretary of Commerce Alabama Department of Commerce, Montgomery, AL
12:10 p.m.	Governor's Luncheon – Exhibit Hall C <i>Presiding:</i> Dr. Steve Taylor, Assoc. Dean for Research Samuel Ginn College of Engineering Auburn University, Auburn, AL
	The Honorable Robert Bentley, Governor (Invited) State of Alabama
1:30 p.m.	Concurrent Technical Sessions
3:00 p.m.	Break
3:30 p.m.	Concurrent Technical Sessions
5:00 p.m.	Adjourn

Friday, February 10, 2017

8:30 a.m.	Concurrent Technical Sessions
10:00 a.m.	Break
10:30 a.m.	Concurrent Technical Sessions
12:10 p.m.	Transportation Director's Luncheon – Exhibit Hall C <i>Presiding:</i> Dr. Andy Nowak, Chair and Professor Department of Civil Engineering Auburn University, Auburn, AL
	John R. Cooper, Transportation Director Alabama Department of Transportation
	AASHTO 25-Year Awards of Meritorious Service
1:30 p.m.	Adjourn

Technical Sessions – Thursday, February 9, 2017

1:30 p.m. to 3:00 p.m.

Traffic Operations and Roadway Design

Meeting Room: Alabama A

Presiding: Clark Bailey, President
Alabama Section ITE

1:30 p.m. **Georgia Express Lanes: Get in. Get Going**
Annie Gillespie
State Road and Tollway Authority, Atlanta, GA

2:00 p.m. **Does Your Road Need to Go on a Diet?**
Mark Doctor
FHWA, Atlanta, GA

2:30 p.m. **AlgoTraffic 511**
Chris Hilyer
ALDOT Maintenance Bureau, Montgomery, AL

Construction

Meeting Room: Alabama B

Presiding: Skip Powe, State Construction Engineer
ALDOT, Montgomery, AL

1:30 p.m. **Birmingham CBD Project Overview**
Lance Taylor and Gary Smith
ALDOT East Central Region, Hoover, AL

2:00 p.m. **Cottage Hill Bridge Deck Replacement**
Jason Shaw, ALDOT Southwest Region, Mobile, AL
Travis Tyler, McInnis Construction, Montgomery, AL

2:30 p.m. **Overview of the Memorial Parkway in Huntsville**
Derrick Wilson, ALDOT North Region, Huntsville, AL
David Harris, Reed Contracting, Huntsville, AL

Innovative SHRP2 Tools for Asphalt

Meeting Room: Alabama CDE

Presiding: Lyndi Davis Blackburn, Assistant State Materials & Tests
Engineer, ALDOT, Montgomery, AL

1:30 p.m. **Quality Control Behind the Paver Using IR Technology**
Daniel Oesch
Missouri Department of Transportation,
Jefferson City, MO

2:00 p.m. **Improve Pavement Rehab Decisions with GPR
Technology**
Ken Maser, Ph.D.
Infrasense Inc., Arlington, MA

2:30 p.m. **Classifying RAP and RAS with FTIR Technology**
Torey Bell
ALDOT, Montgomery, AL

3:30 p.m. to 5:00 p.m.

Highway Safety

Meeting Room: Alabama A

Presiding: David Palmer, President
Association of County Engineers of Alabama

3:30 p.m. **Smart Work Zone Applications**
Susan Soucie
New Hampshire Dept. of Transportation, Concord, NH

4:00 p.m. **Understanding and Preventing Distracted Driving
Behavior**
Despina Stavrinou, Ph.D., Department of Psychology,
University of Alabama at Birmingham, Birmingham, AL

4:30 p.m. **Drowsy Driving Advisory Systems in Alabama**
Min-Wook Kang, Ph.D., Department of Civil Engineering,
University of South Alabama, Mobile, AL

Bridges

Meeting Room: Alabama B

Presiding: Tim Colquett, State Bridge Engineer
ALDOT, Montgomery, AL

3:30 p.m. **Tennessee DOTs Fast Fix 8 Bridge Rehabilitation**
Ted Kniazewycz
Gresham Smith and Partners, Nashville, TN

4:00 p.m. **Overview and Examples of Segmental Bridge
Construction**
Eric C. Johnson
Corven Engineering, Tallahassee, FL

4:30 p.m. **I-10 Mobile River Bridge and Bayway Widening**
Steven M. Flukinger
Thompson Engineering, Mobile, AL

Stretch Performance with Preservation

Meeting Room: Alabama CDE

Presiding: Mark T. Waits, Assistant Bureau Chief
Maintenance Bureau - Roadways, ALDOT,
Montgomery, AL

3:30 p.m. **NCAT Pavement Preservation Studies Update**
Adriana Vargas, Ph.D.
National Center for Asphalt Technology, Auburn, AL

4:00 p.m. **Best Practices for Thin Lift Asphalt Construction**
Shane Buchanan, Ph.D.
Old Castle Materials, Birmingham, AL

4:30 p.m. **Right Pavement, Right Treatment, Right Time**
Richie Beyer
Elmore County Engineering Office, Wetumpka, AL

Technical Sessions – Friday,

8:30 a.m. to 10:00 a.m.

Advancements in Geotechnical Engineering

Meeting Room: Alabama A

Presiding: Kaye Chancellor Davis, State Geotechnical Engineer
ALDOT, Montgomery, AL

8:30 a.m. **Evaluation of Remediation Strategies for Shrink-Swell
Clays in Western Alabama - The AL5 Project**
J. Brian Anderson, Ph.D.
Department of Civil Engineering, Auburn University, AL

9:00 a.m. **Use of Micropiles on the Birmingham CBD Project**
Stephen M. Revell
ALDOT Bureau of Materials & Tests, Montgomery, AL

9:30 a.m. **New Methods in Direct Push Geotechnical Testing**
Roger A. Failmezger
In-situ Soil Testing, L.C., Lancaster, VA

Transportation Planning

Meeting Room: Alabama B

Presiding: Alan Parker, President
Alabama ASCE Section

8:30 a.m. **Federal Funds, Local Funds, or Do Nothing? - Project
Feasibility Studies**
Scott Tillman and Mike Kaczorowski
Regional Planning Commission of Greater Birmingham,
Birmingham, AL

9:00 a.m. **Huntsville's Complete Streets Initiative**
Dennis Madsen
City of Huntsville, Huntsville, AL

9:30 a.m. **Mobile's Updated Congestion Management Process**
Kevin Harrison
South Alabama Regional Planning Commission,
Mobile, AL

Are We Ready for Innovative Technology?

Meeting Room: Performing Arts Center

Presiding: Mark Bartlett, Division Administrator
Alabama FHWA, Montgomery, AL

8:30 a.m. **UAS/UAV Uses for State DOTs and ROI**
Jagannath Mallela
WSP | Parsons Brinckerhoff, Washington, DC

9:00 a.m. **Understanding the Travel Behavior Impacts of
Automated Vehicles (AV)**
Johanna Zmud, Ph.D.
Texas Transportation Institute, Washington, DC

9:30 a.m. **State DOT Policies and Logistics to Support AVs**
Collin Castle
Michigan Department of Transportation, Lansing, MI

February 10, 2017

10:30 a.m. to 12:00 p.m.

Parking

Concrete Solutions

Meeting Room: Alabama A

Presiding: Steven Ingram, Testing Engineer, Bureau of Materials and Tests, ALDOT, Montgomery, AL

10:30 a.m. New Techniques for Controlling Mixed In-Place Soil Cement Road Base
Isaac Howard, Ph.D., Dept. of Civil and Environmental Engineering, Mississippi State University, Starkville, MS

11:00 a.m. Use of Manufactured Sand in Concrete Mixtures and Applications in Transportation
Robin E. Graves, Ph.D.
Vulcan Materials Company, Birmingham, AL

11:30 a.m. Requirements for Mass Concrete Construction in Alabama
Anton Schindler, Ph.D.
Department of Civil Engineering, Auburn University, AL

New Stormwater Ideas to "Runoff" With

Meeting Room: Alabama B

Presiding: Wade Henry, Assistant Bureau Chief - Preliminary Engineering Division, ALDOT, Montgomery, AL

10:30 a.m. The Future of Transportation Stormwater and a New TRB Opportunity
Scott Taylor
Michael Baker International, Inc., Carlsbad, CA

11:00 a.m. Streamlining Environmental Planning
Marlo Clowers
Georgia Department of Transportation, Sandy Springs, GA

11:30 a.m. The Junction of Stormwater and Transportation: Green Infrastructure
Eve Brantley, Ph.D.
Crop, Soil, and Environmental Sciences, Auburn University, AL

Maintenance

Meeting Room: Alabama CDE

Presiding: Stacey Glass, State Maintenance Engineer
ALDOT, Montgomery, AL

10:30 a.m. Analysis of Alabama Transportation Performance Measures
Paul Carter
ALDOT Maintenance Bureau, Montgomery, AL

11:00 a.m. December 2015 Flooding in Alabama
Jim Bearrentine
ALDOT Maintenance Bureau, Montgomery, AL

11:30 a.m. Federal Perspective on Hydraulic Engineering
Brian Beucler
Federal Highway Administration, Washington, D.C.

1. Hotel: Renaissance Montgomery Hotel and Spa Parking Deck

The Renaissance Montgomery Hotel and Spa at the Convention Center occupies the entire block bordered by Tallapoosa Street (front), Commerce Street, Moulton Street and Bibb Street. Parking deck entrance is from the Bibb Street side of the hotel. There are 600 parking places (including valet).

Parking deck entrances are into the hotel second floor and the Convention Center first and second floor. The elevators are different and marked.

Rates:
Self Park: 0-30 min. Free; Up to 2 hrs. - \$3.00; 2 to 6 hours \$6.00; 6 to 10 hours \$10.00; Overnight \$10.00
Valet Parking: 0 to 10 hours \$10.00; Overnight \$16.00

2. MATS Parking Deck

Located at the corner of Moulton and Bell Street. Hours & Rates:
Monday-Friday 6:30 a.m. to 6:00 p.m. - \$1.00 per hour.
Monday-Friday 6:30 p.m. to 6:00 a.m. - no charge
Friday 6:00 p.m. to Monday 6:30 p.m. (Weekends) - no charge.
MATS (Montgomery Area Transportation System) 334-241-2203

3. Biscuits / Riverwalk Stadium Parking

Open daily with no attendant and no charge
Game Days: \$4.00
Operated by the Montgomery Kiwanis Club (334-834-7929)

4. Parkette Parking Area 334-265-7215

Located across Bibb Street between Lee and Commerce.
Private Parking during the week
Free Parking after 6:00 pm Friday through 6:00 pm Sunday
Please note: the permit only lot behind/ southeast of this lot is not available without a permit 24 hours per day, seven days a week.

5. Embassy Suites Hotel

Located across Tallapoosa Street from the Renaissance Hotel.
Rates: \$5.00 per day. Parking charges apply based on demand.

6. Montgomery Chamber of Commerce Visitors Bureau

Located off Water Street under the train station.
Monday - Friday 6:00 a.m. to 5:00 p.m. parking with a permit only.
No charge to park evenings and weekends.

7. Commerce Street / Tallapoosa Street Lot

Located across from the front entrance to the hotel at the Northwest corner of Tallapoosa and Commerce Streets.
Rates: Monday - Friday 6:00 a.m. to 5:00 p.m. parking with a permit only. No charge to park evenings and weekends.

8. Street Parking:

Metered Parking Spaces:
Meters apply Monday through Friday from 8:00 a.m. to 6:00 p.m.
No charge for Evenings, Weekends and Holidays.

Non-Metered Parking Spaces:
Non-metered diagonal spaces and median spaces (on Commerce Street between Tallapoosa and Montgomery Streets)
No restrictions or charges for parking at this time.

Please Note:

Due to the rapidly developing renovation projects throughout downtown Montgomery, there may be changes to this information that are beyond our control.

Sixtieth Annual Transportation Conference

Renaissance Montgomery Hotel and Spa at the Convention Center

February 9-10, 2017

ON LINE REGISTRATION AT: www.engce.auburn.edu

Please print or type; register one person per form; photocopy if more forms are needed.

Name, Employer, DOT Division/Bureau, City_State_Zip+4, Position, Address, Phone, Fax, E-mail

Registration Fee: \$200.00 Student and ALDOT Retiree's Registration Fee: \$50.00

PLEASE MAKE CHECKS PAYABLE TO AUBURN UNIVERSITY

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